# Undergraduate Medical Education

## Teaching Methodology Policy

*Curricular Component: Policy #CC-10 v2*
*Supersedes: none*
*Lead Writer: Teaching and Learning Committee*
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### 1.0    Preamble:

In each of the courses and units in the Undergraduate Medical Education program, a variety of teaching methodologies will be employed to achieve different outcome-based learning objectives.

### 2.0    Statement of Purpose:

The purpose of this policy is to provide guidance to Year and Course Directors and teaching faculty in the selection of teaching and learning methodologies. The ultimate intent is to promote constructive alignment among teaching methodologies, objectives and assessment practices. Constructive alignment is realized when "all components in the system address the same agenda and reinforce each other."[1]When constructive alignment is attained, the likelihood that students will engage in the appropriate learning activities is optimized. As well, since constructive alignment requires clarity in learning objectives, teaching methods and assessment practices, students are better able to engage in self-directed and independent learning.

### 3.0    Principles for Selecting Teaching and Learning Events:

These principles, developed and approved by the Teaching and Learning Committee in October 2007 and formally adopted in the UGME Competency Framework document, should be used to guide faculty in the selection of appropriate teaching and learning methodologies.

| **RELEVANT**: *"to have significant and demonstrable bearing on the needs of the learner"* |
|---|
| WHY SHOULD I CARE?<br><br>"Why is this important to know?" is a key question when considering relevance. In the case of medical students, illustrating clinical applicability is a crucial strategy for creating relevance. Linking the material to the Queen's UGME Competency Framework is also an important step. Relevance then begins with a clear statement of essential learning objectives. To facilitate retention the learning objectives should be reasonable for the amount of time available. Relevance is also fostered when the relationship between the learning experience and the assessment process is explicitly stated. |
| **INTEGRATED**: *"to be connected and interrelated"* |
| WHERE DOES IT FIT?<br><br>Connecting learning to the knowledge of the learner facilitates retention and transfer of information. All learning experiences should therefore be appropriate to the level of the learner and relate to the learner's previous experiences. During the learning session, information should be structured in a way that demonstrates the relationship between key ideas.  As well, there should be clear linkages between individual sessions to allow for progressive reinforcement of fundamental concepts, while at the same time minimizing unnecessary redundancy. It is important therefore to create horizontal integration by explicitly connecting to sessions that have come before and those that will follow a particular learning experience. Vertical integration is accomplished by linking to other types of learning experiences in the curriculum e.g. facilitated small group learning, clinical skills etc. |
| **INTERACTIVE**: *"to act on or influence each other"* |
| HOW WILL I LEARN?<br><br>Learning is a process that results in some modification, relatively permanent, of the learner's way of thinking, feeling or doing. Learning therefore requires the active construction of new ideas or ways of thinking on the part of the learner. Knowledge construction requires the learner to actively engage with the key learning concepts. Students are encouraged to achieve new levels of understanding through learning environments that foster rich interactions among students, between the instructor and students, and between the student and the learning materials. |

Faculty can assess their alignment with these principles by referring to the checklist found in **Appendix A.**

**4.0    Standard:**

4.1.    It is the expectation of the Queen's Undergraduate Medical Education program that the use of active learning strategies be maximized throughout the curriculum.

4.2.    In active learning, students are engaged with the ideas being communicated. Students listen, read, write, organize, reflect and discuss in order to connect what they are learning with what they already know which enhances their ability to transfer those deeper understandings to new contexts[2-3]. To be actively involved, students must engage in such higher-order thinking tasks as analysis, synthesis, and evaluation. Students' active participation in the learning process facilitates retention and supports their ability to transfer through the construction of new ideas and/or ways of thinking [4-6].

4.3.    Self-regulated learning is another form of active learning. Self-regulated learning includes the process by which students independently or collaboratively identify their learning objectives, seek the most appropriate resources necessary to meet the objectives, apply those resources to meet their learning objectives and/or contribute to the learning of others[7-10].  Active learning assists in fostering lifelong learning skills and behaviours[11-12].

4.4.    **To meet this standard, it is the policy of the Queen's Undergraduate Medical Education Program that for all of our courses, 50% or fewer of the total course hours will be lectures.**

**5.0    Procedure:**

5.1.    Directed by the overarching program and curricular objectives assigned to each course, as described in the UGME Competency Based Framework document, Course Directors, Year Directors and teaching faculty will design specific learning and assessment events for students, taking into account the placement in the curriculum and stage of the learner (see Table1).

5.2.    Learning events will then be selected in keeping with the objectives of the course and/or session. These event types include learning through lectures, small group learning, independent learning and assessment. NB:   Learning event types will be reviewed and revised for September, 2012.

**6.0    Oversight:**

6.1.    The UGME Teaching and Learning Committee oversees the collection of data to determine that the teaching methodologies and learning event types in each course are appropriately balanced, in keeping with the above noted standard. For the purposes of calculating hours of learning event types, the hours included are 8:30-5:30, Monday to Friday, excluding 1 hour per day for lunch. Holidays are taken into account.

6.2.     Course Directors and Year Directors determine the learning event type for each session.

6.3.     The learning event type is entered into the MEdTech database by the Curricular Coordinators.

6.4.     Student Monitors verify learning event types for all learning events in their year. Student Monitors are trained by the UG Educational Developer and the Chair of the UG Teaching and Learning Committee (TLC) as well as Student Monitors from previous years.

6.5.     Student Monitors meet regularly with the UG Educational Developer. Differences in student event monitoring and the event entered in the database are recorded on a detailed query form. The form is then submitted to the Educational Developer and Chair of the UG TLC.

6.6.     The Chair of the TLC sends a report summarizing the learning event types for a course to each Course Director and Year Director at the end of each term. Any noted discrepancy between student monitoring and stated learning event type is sent out at the same time asking for feedback. A resolution is discussed where necessary. In the absence of feedback, the student experience is recorded as the official learning event type.

**7.0     Reporting & Follow-up:**

7.1.     The UGME Teaching and Learning Committee reviews the reports and provides feedback to the Course Director regarding the balance among the variety of teaching methods employed.

7.2.     It is the responsibility of the Course Director to ensure appropriate follow-up and to describe solutions required to address any issues.

7.3.     The UGME Teaching and Learning Committee will report at least on an annual basis or as required to the Curriculum Committee on the current state and proposed developments in the appropriate balance of teaching and learning event types for all courses in pre-clerkship. This data will also be sent to the Course and Faculty Review Committee for course review.

7.4.     Targets for the balance of learning event types will be reviewed and determined by the UG Teaching and Learning Committee at least every two years for approval and implementation by the UG Curriculum Committee.

**Table 1 – Matching Level of Learning, Objectives & Learning Event Types ([6-7])**

| **Level of learning** | IDEAS<br><br>"Knowing About" | CONNECTIONS<br><br>"Understanding how & why" | EXTENSIONS<br><br>"Thinking Beyond" |
|---|---|---|---|
| | • Factual recall of foundational information<br>• Grasp of elemental concepts<br>• Follow basic diagnostic protocols<br>• Identification of patient problems | • Demonstrating relationships across concepts e.g. proposing a differential diagnosis<br>• Connecting prior knowledge and experience e.g. relating foundational concepts to patient presentations<br>• Progressing through differential diagnosis | • Predicting future outcomes<br>• Evaluating diagnosis, and/or treatment options.<br>• Proposing treatment<br>• Extension of findings to different patients |
| | ⟶ Increasing levels of understanding & expertise ⟶ | | |
| **Outcome Based Objectives: By the end of this session the student will be able to** | List<br>Describe<br>Explain<br>Observe<br>Point out<br>Respond<br>Receive | Apply<br>Interpret<br>Compare<br>Demonstrate<br>Perform<br>Value<br>Respect | Diagnose<br>Analyze<br>Evaluate<br>Create<br>Design<br>Consider<br>Resolve |
| **Learning Event Types** | Lecture ⟶ Small Group ⟶ Student<br><br>Teacher Directed (Classroom or Facilitated) Directed<br><br>Independent Learning Independent Learning | | |

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## APPENDIX A Principles Checklist

Undergraduate Medical Education: Evaluation of Learning Event
Phase:          Session Title:                    Instructor:               Date:

| QUALITY OF INSTRUCTION | SD | D | A | SA | NS |
|---|---|---|---|---|---|
| 1.  The instructor was well prepared | | | | | |
| 2. The instructor was on time and organized | | | | | |
| 2.  The instructor presented the material clearly | | | | | |
| 3.  The instructor stimulated my interest in the material | | | | | |
| 4.  The instructor demonstrated enthusiasm for the material | | | | | |
| 5.  The instructor demonstrated effective use of audio visual aids and technology (e.g. PowerPoint, clickers, multimedia such as photos, videos, diagrams…) | | | | | |
| 6.  The instructor made effective use of MEdTech Central | | | | | |
| **7.  Overall, this instructor was an excellent teacher** | | | | | |

| CONTRIBUTION TO COURSE PRINCIPLES | SD | D | A | SA | NS |
|---|---|---|---|---|---|
| • **RELEVANT** | | | | | |
| 8.  The learning objectives of the session were clearly presented | | | | | |
| 9.  The learning objectives and topics of the session clearly relate to the UGME Competency Framework | | | | | |
| 10.  The learning objectives of the session match those in MEdTech Central | | | | | |
| 11.  The objectives provided were realistic for the amount of time available | | | | | |
| 12.  The instructor used good examples (e.g. clinical cases) to illustrate concepts | | | | | |
| 13.  The instructor related the assessment tasks to the session objectives | | | | | |
| **14. Overall, this session contributed to my understanding (helped me to think more clearly) and development of competence** | | | | | |
| • **INTEGRATED** | | | | | |
| 15. During the session I tried to relate the material to other things I know | | | | | |
| 16. The material in this session was presented at the right level | | | | | |
| 17.  There was a logical flow and organization to the session | | | | | |
| 18. The session clearly built on ideas provided in previous sessions | | | | | |
| 19. This session does not include unnecessary duplication of material | | | | | |
| 20. The session was clearly related to future sessions | | | | | |
| **21. Overall, this session was well integrated with other learning experiences in the curriculum** | | | | | |
| • **INTERACTIVE** | | | | | |
| 23. The instructor demonstrated effective use of questions | | | | | |
| 22. The instructor encouraged discussion  (e.g small group sessions) | | | | | |
| 24. The instructor stimulated independent thinking | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 25. The instructor included "real world" experiences which I could readily understand | | | | | |
| 26. The instructor gave me the opportunity to demonstrate my knowledge and competence | | | | | |
| **27. Overall, this session provided opportunity for student participation** | | | | | |